A NOTE ON THE HABITS OF *EPACTIOTHYNNUS OPACIVENTRIS* TURNER, AN AUSTRALIAN THYNNID WASP.

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During the winter of 1919, while engaged in entomological work on the Herbert River, North Queensland, for the Experiment Station of the Hawaiian Sugar Planter's Association, I made a few observations on this wasp. *Epactiothynnus opaciventris* is a moderately small species of the great Australian group of Thynnidæ. The male measures about 11 and the female 8 mm. in length. At the time of observation it was the most abundant of the few species of Thynnids then flying and its main food flower was Crotalaria sp., a common weed along roadsides and edges of fields.

I can find nothing in literature which relates to the egg and larval stages of any of the Australian Thynnidæ, though Froggatt (Australian Insects, 1907) has dug up cocoons which yielded a large species. He states that these wasps probably parasitize the larvæ of Lamellicorn beetles.

When females of *Epactiothynnus* were enclosed in a tumbler or shallow dish of soil with Lamellicorn grubs about 14 mm. long, and which were common in some of the cane fields, these grubs

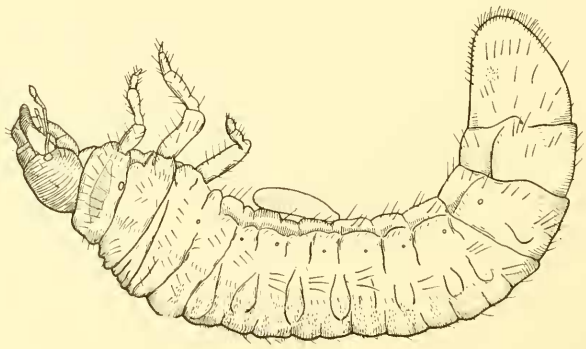

Fig. 1. Larva of one of the Scarabæid beetles, showing egg of *Epactiothynnus opaciventris* on its mid-ventral line. (X 4.25, North Queensland.)

were eventually stung to almost complete paralysis, just as the Scolias sting their prey. I did not observe the act of stinging, but a single Epactiothynnus would sometimes paralyze several grubs overnight. Something was wrong, however, perhaps the weather was too cool, for of the many grubs stung but one had an egg upon it, and that failed to hatch. The egg (Fig. 1) is deposited along the mid-ventral line of the larva. It is pearly white, somewhat arcuate, thicker at one extremity, and measures 1.85 x 0.40 mm.

Tachynomyia sp., a darker and somewhat larger Thynnid was found also to paralyze the same species of beetle larva that was offered to Epactiothynnus.

In the bulk of the Thynnidæ the strong-winged male, as he flies from place to place or feeds at flowers, carries his apterous and obese partner with him. In captivity, at least, two *Epactiothynnus* may remain paired for several days.

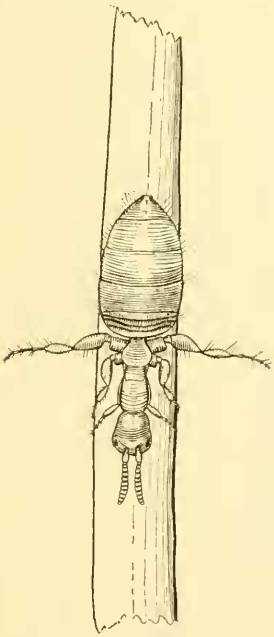

Fig. 2. Female Thynnid on reed; in such a position, she awaits the advent of the winged male, which carries her off. (X 6.7, Sydney.)

Fig. 2 is a drawing from life of a small species of Thynnid taken near Sydney. She was first observed crawling on the ground, then ascend a reed, place herself in an inverted position, with the abdomen inclined a little forward, and thus motionless to await the coming of the male. *Epactiothynnus* females had the same habit awaiting their mates in a conspicuous place. The circling males sometimes betrayed her whereabouts; as soon as located she was immediately seized and carried off.

Australia has perhaps the richest fauna of Scarabeid beetles in the world, so it is not surprising that the enemies of these often destructive insects are similarly numerous. The immense Thynnid population of several hundred species far outnumbers the Scoliidæ, and it may be affirmed

with some degree of certitude that, like the latter, they prey essentially on Lamellicorn beetle grubs. The rather anomalous "blue ant," *Diamma bicolor*, is somewhat related to the *Methoca* group, and being a fierce and active insect of good size perhaps attacks caraboid beetle larvæ.

AN AFRICAN FIGITIDÆ.

By Alfred C. Kinsey,
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Aspicera africana sp. nov.

Male and *Female.* Body entirely black, except the antennæ and legs, which are rufous-brown. *Head:* black, ocelli yellowish, compound eyes silvery; front concave, coriaceous, with a few, short, wavy lines, bounded laterally by prominent ridges extending from the lateral ocelli to the base of the antennæ and beyond half way to the mouth; lower half of face irregularly rugosostriate, hairy; cheeks hairy; mandibles dark rufous; antennæ rufous-brown, darker toward the tips, in the ♀ 13-jointed, in the ♂ 14-jointed. *Thorax:* entirely black, finely coriaceous, the sides of the pronotum and the metapleuræ dense with white hairs; mesopleuræ with a large shining area; parapsidal grooves continuous, deep, cross-ridged, broad at the scutellum, curved sharply apart at the pronotum; a narrow, elevated median ridge extending from the pronotum half way to the scutellum; the depressed median groove from that point to the scutellum is two-thirds as wide as the distance between parapsidals; anterior parallel lines smooth, elevated, extending half the length of the thorax; foveæ very large, very deep, sparsely striate, with a fine, shallow ridge between; the spine of the scutellum about half the length of the whole scutellum, with 3 to 5 longitudinal ridges. *Abdomen:* piceous black, finely and regularly punctate, the 2nd segment dorsally about one-third the total length and reduced to a mere scale on the sides, 3rd segment reaching almost to the tip of the abdomen; abdomen in the male similar but more slender. *Legs:* uniformly rufous-brown, including the coxæ; with short hairs. *Wings:* very clear, without hairs; the subcosta, basal vein, and radius distinct, pale